



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 17, 2017

FedEx Tracking #: 779667959110

Owner FedEx
Tracking #
779667973157

Ex. 6 Personal Privacy (PP)

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Sunnyvale, CA 94085

Re: Vapor Intrusion Indoor Air Sampling Results
Residential Building #127 Ex. 6 Personal Privacy (PP) Sunnyvale, CA 94085
Philips, Advanced Micro Devices 901-902, TRW Microwave Superfund Sites ("Triple Site")

Dear Mr. Spurlock and Mr. and Mrs. Goldwater:

Thank you for your cooperation and participation in the U.S. Environmental Protection Agency's (EPA) vapor intrusion indoor air sampling investigations in Sunnyvale, California. This letter confirms in writing the results of EPA's indoor air sampling for trichloroethene (TCE), conducted at your property in January 2016 and January 2017.

Your TCE Indoor Air Results: EPA considers TCE levels below 2.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to be health protective and all of your sampling results met this criterion. TCE was detected at levels of up to $0.17 \mu\text{g}/\text{m}^3$ both in the air inside your home and in the crawlspace air underneath your building. These TCE levels are similar to the outdoor air TCE levels measured during your testing periods, showing no evidence of vapor intrusion in your building.

Your sampling results meet EPA's requirements for being health protective and show no evidence of vapor intrusion. Based on the data that we have collected from your building over multiple sampling events and based upon what we have learned from our sampling efforts at over 250 buildings in the neighborhood to date, EPA does not recommend any additional indoor air sampling at your building.

While we did not find evidence of unacceptable TCE vapor intrusion at your building; your building is close to nearby homes and school buildings where higher levels of TCE were detected and where mitigation systems were installed to prevent TCE vapors from accumulating indoors. Therefore, out of an abundance of caution, we recommend that you and your landlord contact EPA to re-evaluate and possibly re-test your home if any remodeling or significant renovations are conducted in the future.

Certain types of renovations or structural changes can increase a building's likelihood of being affected by vapor intrusion. For example, sealing crawlspace vents may reduce fresh air flow into the home. Drilling holes through the floor for a new toilet or telephone/internet cable can create a new pathway for vapors to enter the home. We can schedule a quick visit with you and your landlord to go over the plans and discuss whether another round of sampling or other response activities would be appropriate.

Background on EPA Investigation: EPA has been investigating the potential for vapor intrusion (process where vapors from groundwater may migrate into the indoor air in buildings) in the East Duane / San Miguel Avenue neighborhood. Please be aware that your drinking water is not affected by contaminants in groundwater. Your water for drinking, bathing and watering gardens comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and is tested to ensure that it meets all state and federal drinking water standards.

Health Protection Goals: EPA's goal for Superfund site-related chemicals is to keep exposures as low as reasonably possible. EPA considers the safe range of TCE concentrations for residents to be below 2.0 µg/m³ (the short-term screening level). When an indoor air sample is collected and shows a concentration above the long-term screening level (0.48 µg/m³) but below 2.0 µg/m³, EPA uses this information to decide whether additional sampling or response action are necessary, to confirm that levels continue to remain protective over time. More information about TCE can be found at this website:

<http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=172&tid=30>

More About Your Results: Very low levels of TCE were detected in the air inside your home and in the crawlspace air underneath the building. The sample results meet EPA's short-term health protective screening level (2.0 µg/m³) and EPA's long-term health protective screening level (0.48 µg/m³) for TCE.

One other compound that is not associated with the Triple Site was detected (perchloroethene or PCE) at low concentrations of up to 0.17 µg/m³, below both the long-term health protective screening level of 0.48 µg/m³ and the short-term screening level of 36.5 µg/m³. The table below summarizes the sampling results for your home.

Sample Location	TCE Concentrations				PCE Concentrations			
	(micrograms per cubic meter or µg/m³)							
	Jan 2016 (24-Hour)	Jan 2016 (14-Day)	Jan 2017 (24-Hour)	Jan 2017 (15-Day)	Jan 2016 (24-Hour)	Jan 2016 (14-Day)	Jan 2017 (24-Hour)	Jan 2017 (15-Day)
Indoor Air Sample (Living Room/Dining Room)	0.17	0.084	Not detected	*	0.17	Not detected		*
Crawlspace Air Sample	0.17	0.095	Not detected	0.14	0.16	Not detected		
Outdoor Air Sample – During your testing period	Up to 0.21	Not detected	Not detected	0.2	Up to 0.16	Not detected		
Neighborhood Outdoor Air	0.028 to 1.5				0.03 to 0.46			
	(Range of outdoor air samples in the neighborhood)							
EPA Screening Levels								
Short-term Screening Level	2.0				36.5			
Long-term Screening Level	0.48				0.48			

* One sample collected from this residence showed a TCE indoor air result of 4.2 µg/m³ during the January 2017 sampling event. However, based on the laboratory report, this result appears to be an estimated value and the actual TCE level in that residence is likely much lower than 4.2 µg/m³. A similar issue affected the PCE concentration in January 2017, where 0.83 µg/m³ was reported, which is also likely overestimated.

PCE and TCE belong to a chemical category called VOCs (volatile organic compounds), which are contained in products that may be commonly found around the home (such as silicone lubricants, spot removers, adhesives, wood cleaners and dry-cleaned clothing). Additionally, because PCE is not found in the groundwater beneath your neighborhood and the PCE concentration detected in the indoor air samples is similar to the outdoor air concentrations of PCE measured in your neighborhood; it is likely that the low levels of PCE detected in your home are associated with typical outdoor concentrations of this chemical.

Outdoor Air Quality: Often, the air quality inside your house will be similar to outdoor air quality. In a vapor intrusion investigation, it is important to determine whether indoor air quality is linked to outdoor air quality or whether air inside the home is affected by vapor intrusion. When outdoor air enters a building through open windows or air conditioning/heating systems, particles or pollutants that are present outside will naturally be

carried into the home. In urban areas, these pollutants typically come from cars, trucks, and industrial facilities and can vary over time. While outdoor air TCE levels have varied throughout the course of EPA's investigation; the outdoor air TCE levels measured during your testing periods were low and similar to your indoor air results, showing no evidence of vapor intrusion.

TCE Vapor Intrusion Findings: Overall, based on what we have learned after two years of indoor air testing in four schools and over 225 households in your neighborhood, EPA considers it unlikely that your home is being affected by vapor intrusion.

While we did not find evidence of unacceptable TCE vapor intrusion at your building; your building is close to nearby homes and school buildings where higher levels of TCE were detected and where mitigation systems were installed to prevent TCE vapors from accumulating indoors. Therefore, out of an abundance of caution, we recommend that you and your landlord contact EPA to re-evaluate and possibly re-test your building if any remodeling or significant renovations are conducted in the future.

Certain types of renovations or structural changes can increase a building's likelihood of being affected by vapor intrusion. For example, sealing crawlspace vents may reduce fresh air flow into the home. Drilling holes through the floor for a new toilet or telephone/internet cable can create a new pathway for vapors to enter the home. We can schedule a quick visit with you and your landlord to go over the plans and discuss whether another round of sampling or other response activities would be appropriate.

Next Steps: We will continue to provide you with periodic updates about our investigation. Also, please contact EPA if any significant changes are planned for this property in the future. If you have any questions, please contact me at (415) 972-3050 or by e-mail to morash.melanie@epa.gov. You may also contact EPA's Community Involvement Coordinator, Alejandro Díaz, who is fluent in Spanish, at (415) 972-3242 or by e-mail to diaz.alejandro@epa.gov.

Thank you again for your cooperation and participation in this air sampling investigation.

Sincerely,

Melanie Morash

Melanie Morash, EPA Project Manager